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Downward wage rigidity and optimal monetary policy - comments on papers by Fahr & Smets and Fagan & Messina

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Downward Wage Rigidities and Optimal Monetary Policy in a Monetary Union (S Fahr & F Smets)

- . There is now strong evidence of DNWR and DRWR in many OECD countries
- . How does DNWR and DRWR affect optimal monetary policy in a Monetary Union?
 - . Steady-state inflation depends on DNWR and DRWR
 - . Effect of asymmetric shocks depend on DNWR and DRWR
 - . Variation in DNWR and DRWR will imply that effect of symmetric shocks vary within union
 - . Policy response will have different impact on different parts of the union



Two-region monetary union DSGE model with costs of adjusting wages and prices

- . Households in two regions, H and F
 - . Buy composite Home and Foreign goods
 - . Monopolistic suppliers of own labour type (à la Erceg, Henderson, Levin) – set wage as markup on marginal rate of substitution
- . Firms produce differentiated products with decreasing returns in labour
 - . Buy labour from households
 - . Set prices as markup over nominal marginal costs
 - . Final goods, H and F, aggregate over diff. goods.
- . Costs of adjusting wages and prices
 - . Allowing for asymmetric costs in adjusting nominal and real wages



Calibration to euro area – steady state and effects of shocks

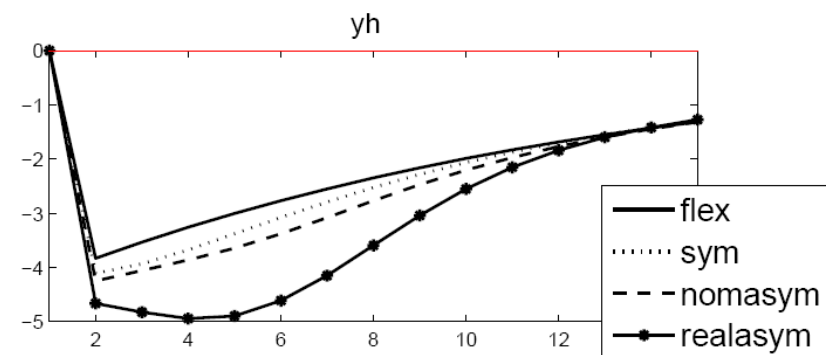
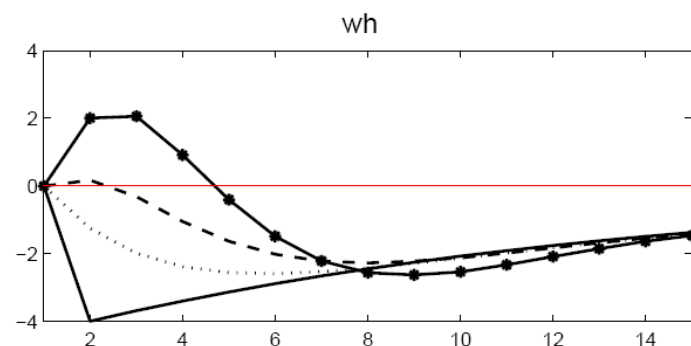
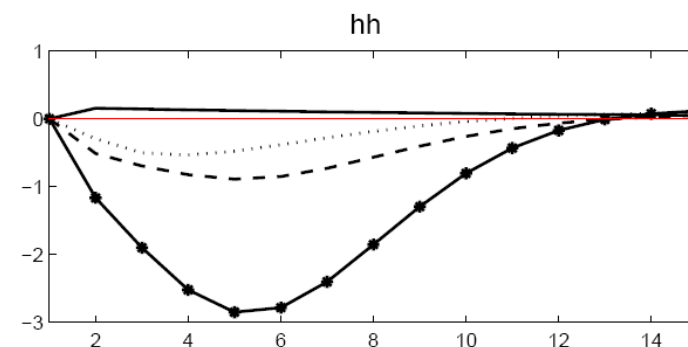
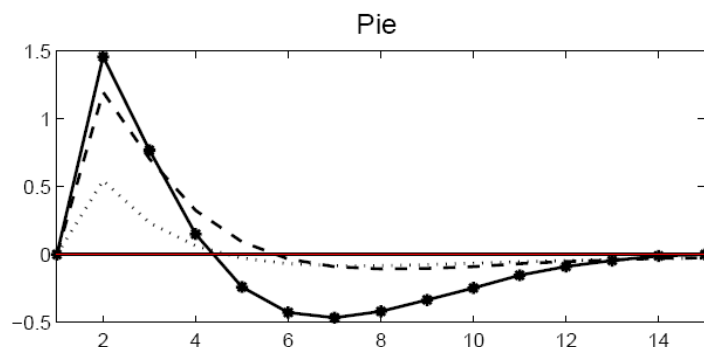
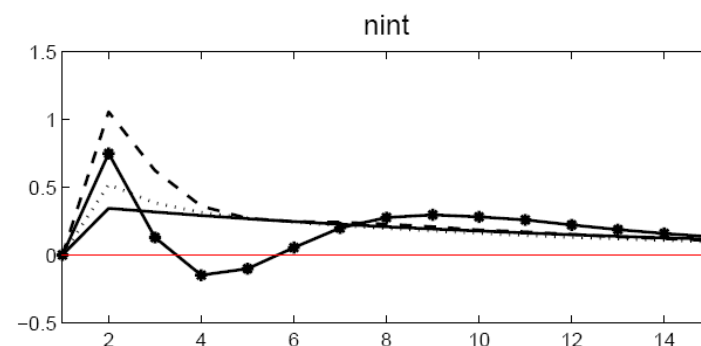
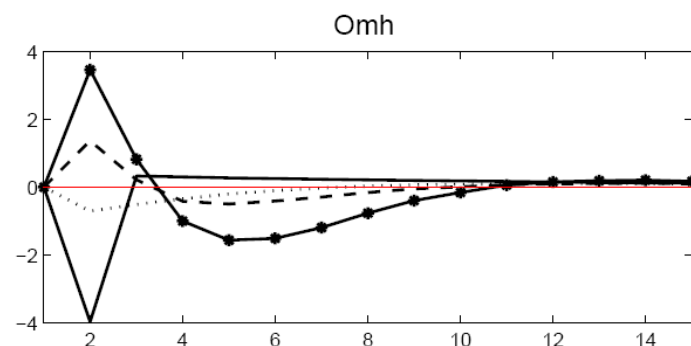
- . Optimal steady state inflation
- . DRWR => zero inflation
 - . No grease effect of inflation
- . DNWR and rigid prices => 0.16% inflation
 - . Grease effect, but inflation is costly with rigid prices
- . DNWR and flex prices => 3.3% inflation
 - . Only grease effect



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Comparing response to a large negative shock to aggregate productivity

Dynamic
effects –
effect of
negative
aggregate
shock





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What do I think?

- . Impressive paper,
- . On important subject
- . Fine research



Some comments/concerns

- . Wage rigidity for one household affects all firms
 - . Carlsson & Westermarck – workers linked to firms
- . DNWR and DRWR seen as alternatives
 - . High DRWR likely to imply high DNWR
- . Exts: prod. growth; other shocks
- . Asym. shocks in a monetary union



Asymmetric productivity shocks in a monetary union

- . Effects mitigated by
 - . Strong opposing price effect
 - . International risk sharing
- . Deflationary effect via wages

More plausible (?)

- . Negative country-specific shocks rarely countered by higher prices
- . Walter's effect in downturn (lower inflation involves higher real interest rate)
- . DWR pushes up average wage growth



Downward wage rigidity and optimal steady-state inflation (G Fagan & J Messina)

- What are the effects of Downward Wage Rigidity DWR on optimal steady-state inflation?
- Modify DSGE model, allow for DNWR and DRWR
- Calibrate using IWFP micro data
- Focus on steady-state, with cross-sectional distributions of wages and prices
- Solve for alternative values of steady state inflation
- Compare welfare effects



Main findings

- . Some European countries: Evidence of DRWR, but no/less DNWR
 - .Optimal steady-state inflation 0 – 2 percent
- . The US: Evidence of DNWR, but no DRWR
 - .Optimal steady-state inflation 2-5 percent (depending on data set)



What do I think?

- . Another impressive paper, on a related important subject, fine research
- . Great combination:
 - . Micro data from IWFP, the most extensive empirical work on DWR
 - . State-of-art theoretical framework, appropriately modified to problem at hand
- . Aim of paper close to Holden, *Economica* 2004, but two major improvements
 - . Data and macroeconomic framework



- . Combine DNWR and DRWR

Extensions:

- . Productivity growth – gives more scope for nominal wage growth
- . Fluctuations – DWR binding in downturns, amplifying the problems
- . Asymmetric shocks - leads to higher wage growth when combined with DNWR



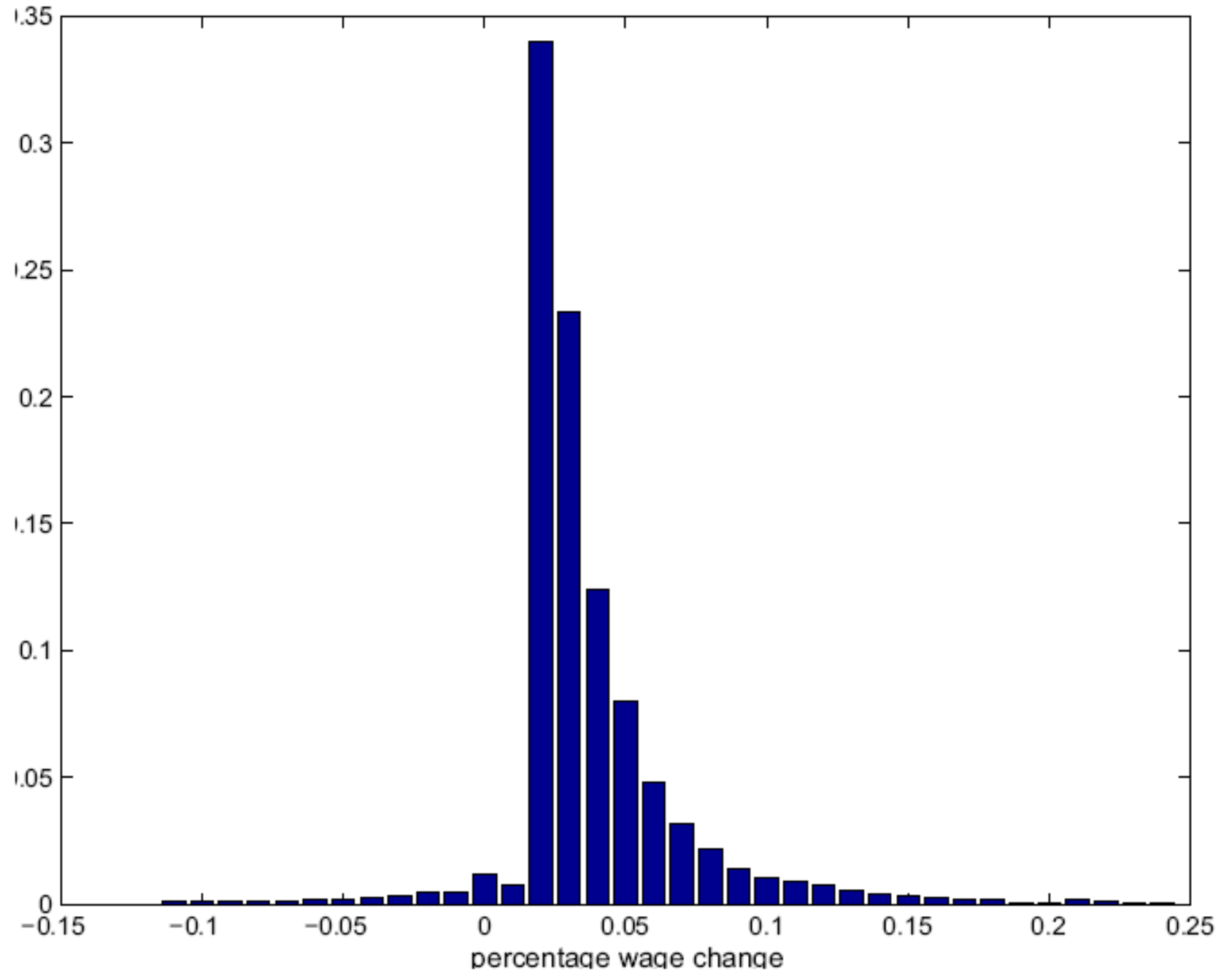
Are DNWR and DRWR alternatives?

- Estimates of DNWR and DRWR from IWFP are negatively correlated
 - .Wage setters focus either on real or on nominal wages
- But: Estimates of DNWR affected by the strong DRWR (positive inflation in estimation period)
 - .Employees taking a real wage cut may not be representative for the whole labour force
- May give misleading indication of what the extent of DNWR would be under low or zero inflation



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Sources of Downward Wage Rigidity

- . Coordination problems
 - . Workers concerned about relative wages (Keynes)
- . Fairness considerations
 - . Wage cuts hurt morale and productivity (Kahneman et al, Akerlof et al, Bewley, others)
- . Contractual/legal effects
 - . Old nominal wage applies unless mutual agreement on change (MacLeod & Malcomson, AER, 1993; Holden, EER, 1994)
- . Extent of DNWR differs across and within countries, and is not absolute
- . Stronger for DNWR than DRWR (?)



Downward Wage Rigidity DWR

- . DWR reflects
 - . union/employee power vs.
 - . "economic push downwards" – what the wage would have been without DWR (the notional wage)
- . Easier to defend nominal wage than real wage
- . Strong unions/employees able to maintain real wage in spite of notional wage cut
- . Less strong unions/employees able to maintain nominal wage in spite of notional wage cut
- . Weak unions/employees must accept wage cut if notional wage falls



My conjecture

- . With lower inflation, DNWR would be more apparent also in European data
- . At zero inflation, DNWR and DRWR would melt together, and downward wage rigidity be amplified
- . Going to zero inflation would be more costly in many European countries than in the US
- . Wage formation system would to some extent adapt, but slowly and costly
- . Productivity growth and other types of flexibility (turnover, etc) may give room for lower inflation in spite of DNWR